

CLAIMS

WHAT IS CLAIMED IS

- Sub A2
1. A method for treating inflammation comprising heating inflamed tissue.
 2. The method of treating inflammation of claim 1 wherein said inflamed tissue comprises an atherosclerotic plaque.
 3. The method of treating inflammation of claim 1 wherein said heating is accomplished by a heat source positioned within the lumen of a blood vessel.
 4. The method of treating inflammation of claim 1 wherein said heating is accomplished with a catheter.
 5. The method of treating inflammation of claim 1 wherein said heating further includes heating with infrared radiation.
 - Sub A3
6. The method of treating inflammation of claim 1 wherein said heating is at a temperature in the range of 38.5°C to 44°C.

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~~7.~~ The method of treating inflammation of claim ¹⁶~~8~~ wherein said heating is at a temperature in the range of 38.5°C to 41°C.

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~~8.~~ The method of treating inflammation of claim ¹⁶~~8~~ wherein said heating is at a temperature in the range of 41°C to 44°C.

Sub H
~~9.~~ The method of treating inflammation of claim 1 wherein said heating occurs for a period of time in the range of approximately 15 to 60 minutes.

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~~10.~~ The method of treating inflammation of claim ¹⁹~~9~~ wherein said heating occurs for a period of time in the range of approximately 15 to 30 minutes.

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~~11.~~ The method of treating inflammation of claim 1 wherein said heating induces apoptosis in immune cells.

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~~12.~~ The method of treating inflammation of claim 1 further comprising treating said inflamed tissue with chemical agents.

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~~13.~~ The method of treating inflammation of claim ⁷~~12~~ wherein said chemical agent is a

cytokine.

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~~14~~. The method of treating inflammation of claim ⁷~~12~~ wherein said chemical agent is a growth factor.

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~~15~~. The method of treating inflammation of claim ⁹~~14~~ wherein said growth factor is selected from the group consisting of insulin-like growth factor, vascular endothelial growth factor, fibroblast growth factor.

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~~16~~. The method of treating inflammation of claim 1 further comprising treating said inflamed tissue with gamma-radiation.

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~~17~~. The method of treating inflammation of claim 1 wherein said heating step further comprises treating said inflamed tissue with radiofrequency.

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~~18~~. The method of treating inflammation of claim 1 further comprising treating said inflamed tissue with ultraviolet radiation.

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~~19~~. The method of treating inflammation of claim 1 wherein said heating step further comprises treating said inflamed tissue with microwave radiation.

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20.

The method of treating inflammation of claim 1 wherein said heating step further comprises treating said inflamed tissue with a heated liquid.

21. A method of treating an atherosclerotic plaque comprising heating an inflamed atherosclerotic plaque in the lumen of a blood vessel with a heat source having a temperature in the range of from about 38.5°C to 44 °C for a period of time ranging from about 15 to 60 minutes and inducing apoptosis in a macrophage.

22. A method for inducing quiescence or apoptosis in inflammatory cells comprising the step of heating inflammatory cells in a blood vessel.

23. The method of inducing apoptosis in inflammatory cells of claim 22 for inducing apoptosis in macrophages wherein said heating includes irradiating said macrophages with infrared radiation.

24. The method of inducing apoptosis in inflammatory cells of claim 22 for inducing apoptosis in macrophages wherein said step for heating macrophages is carried out with a catheter in a blood vessel.

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25. The method of inducing apoptosis in inflammatory cells of claim 22 for inducing apoptosis in macrophages wherein said macrophages are heated for fifteen (15) minutes.

26. The method of inducing apoptosis in inflammatory cells of claim 22 for inducing apoptosis in macrophages wherein said macrophages are heated with heat having a temperature of between approximately 41°C and 44°C.

27. A method of treating an atherosclerotic plaque comprising the step of treating an atherosclerotic plaque with heat in the range of 38.5°C to 44°C.

28. A method of treating inflammation comprising heating inflamed body tissue by heating a stent that is in thermal contact with the inflamed body tissue.

29. The method of treating inflammation of claim 28 wherein the said stent is heated by microwave radiation.

30. The method of treating inflammation of claim 28 wherein the said stent is heated by radiofrequency radiation.